

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application.

Listing of Claims:

1. (currently amended) A system for managing coherent data access through multiple nodes, comprising:

a first data processing system forming a first node, in which the first data processing system includes a first bridge, a first interface and a memory that is local to the first node, wherein the first node supports coherent and non-coherent traffic and the memory stores cacheable data having coherency; and

a second data processing system forming a second node that supports coherent and non-coherent traffic, in which the second data processing system includes a second bridge and ~~respective interfaces couple~~ a second interface, the first and second interfaces coupling the first node to the second node, wherein when the second node receives a request from an external source to access a coherent fabric of the memory, the second bridge identifies the ~~memory as located in first node as~~ a remote node and transfers the request as an uncacheable access request to the first node so that the uncacheable access request does not access ~~the a~~ coherent fabric in the second node, and when the first bridge receives the uncacheable access request, the first bridge identifies the access to the memory as a local access in the first node and processes the uncacheable access request from the second node as a coherent access to access the coherent fabric of the memory in the first node.

2. (canceled)

3. (previously presented) The system of claim 1, wherein the request from the external source is a read or a write request to access the memory.

4-5. (canceled)

6. (currently amended) The system of claim 1, wherein the access by the second bridge writes data to a location of the memory and a subsequent access by ~~another~~ an agent to ~~access the location of~~ read the data in the memory ~~conforms~~ conform to a producer-consumer protocol, wherein the second bridge corresponds to a producer and the ~~another~~ agent corresponds to a consumer of the producer-consumer protocol.

7. (currently amended) The system of claim 6, wherein the data written by the second bridge to ~~access~~ the memory comprises a payload and a flag.

8-9. (canceled)

10. (currently amended) A method for managing coherent data access through multiple nodes, comprising:

- establishing a cacheable coherent memory space in a local memory of a first data processing system that forms a first node that supports coherent and non-coherent traffic, and in which the first data processing system also includes a first bridge and a first interface;

- receiving at a second node a request from an external source to access a coherent fabric of the memory, wherein the second node supports coherent and non-coherent traffic and is formed of a second data processing system that includes a second bridge and a second interface;

- identifying in the second node that the memory is located in a remote node;
- converting the request to access the memory as an uncacheable access request to the first node in the second bridge, so that the uncacheable access request does not access ~~the~~ a coherent fabric in the second node;

- transferring by the second bridge the uncacheable access request to the first node;
- receiving by the first bridge the uncacheable access request from the second node through respective coupling between the first and second interfaces;

- identifying the uncacheable access request as a local access to the memory in the first node;

processing the uncacheable access request from the second node as a coherent access to access the coherent fabric of the memory in the first node; and

accessing the coherent fabric of the memory in the first node in response to the request from the external source to access the memory, but in which the access is processed without accessing the coherent fabric in the second node.

11. (canceled)

12. (previously presented) The method of claim 10, wherein the access request from the external source is a read access or a write access to the memory.

13-14. (canceled)

15. (currently amended) The method of claim 10, wherein the access by the second bridge writes data to a location of the memory and a subsequent access by ~~another~~ an agent to ~~access the location of~~ read the data in the memory ~~conforms~~ conform to a producer-consumer protocol, wherein the second bridge corresponds to a producer and the ~~another~~ agent corresponds to a consumer of the producer-consumer protocol.

16. (currently amended) The method of claim 15, wherein the data written by the second bridge to ~~access~~ the memory comprises a payload and a flag.

17-18. (canceled)